



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,572	07/16/2003	Yukiko Takeda	1213.42935X00	7099

24956 7590 02/22/2007
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/619,572

Applicant(s)

TAKEDA ET AL.

Examiner

Marivelisse Santiago-Cordero

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/27/06 have been fully considered but they are not persuasive.

Applicant's arguments are the same as previously submitted arguments (see e.g., Remarks filed on 3/15/06); accordingly, as stated in previous Actions, they fail to address claims in particular. Rather, they address all the claims in general, when particular references have been applied to particular claims. Consequently, applicant's arguments are not specific; therefore, arguments are interpreted as best understood.

Applicant argues that Oishi does not disclose that the mobile terminal generates home address based on a prefix (see Remarks: page 16, 3rd full paragraph). In response, paragraphs [0068]-[0069] of Oishi disclose an authentication response packet comprising a prefix and the mobile terminal setting a home address when receiving the authentication response packet. See also Fig. 15 where it shows the components of the authentication response packet.

Applicant argues that Verrepalli does not disclose that the mobile terminal generates home address based on a prefix (see Remarks: page 16, 3rd full last paragraph). In response, the Examiner contends that is the very same reason why Verrepalli was modified. In addition, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, Veerepalli does teach a care of address when mobile terminal is not in the home network (paragraph [0032]).

Applicant argues that Ishiyama does not disclose an IP-v6 address generation method for a mobile terminal (mobile IP-v6) (see Remarks: page 16, 3rd full paragraph). In response, the host device of Ishiyama can be fairly characterized as a mobile terminal as claimed because Ishiyama teaches it is any device capable of accessing the Internet, such as home electronics device, AV device (paragraph [0038]), and a radio LAN device (paragraphs [0127]-[0128]). In addition, applicant argues that Ishiyama does not disclose that the generated IP address is a home address or a care of (c/o) address (see Remarks: page 16, 3rd full paragraph). In response, the Examiner makes reference to Ishiyama paragraphs [0043] and [0079] where it discloses the IP address generated in the home network and a source address selection unit to select which IP address is to be used as the source address, i.e., the home address.

Applicant argues that Verrepalli and Ishiyama do not disclose that the mobile terminal acquires a home address in a network other than the home network (Remarks: page 16, last paragraph). In response, Veerepalli's Fig. 1 and paragraph [0040] discloses this limitation.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the gateway comprising DHCP-PD function) (See Remarks: page 16, lines 5-10) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant's arguments are more specific than claims.

In response to applicant's argument that there is no suggestion to combine the references ("cannot be combined") (see Remarks: page 17, 1st full paragraph), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to

Art Unit: 2617

produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references disclose home network resources in IP deployment and one of ordinary skill in the art would be motivated to combine them with the knowledge generally available to them.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-8, 10-12, and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Oishi (Pub. No.: US 2004/008119).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Oishi discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, references 1 and 3, either alone or in combination) for holding mobile terminal location information of a mobile terminal (page 1, paragraphs [0010] and [0047]), the mobile terminal using a first home address in the home network (paragraph [0046]; also note that the when in the home network the mobile terminal inherently uses a first home address);

a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]; note that the terminal is roaming; thus, in a visited network); and

gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference 2), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (Fig. 1; page 2, paragraph [0046]),

wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network (Fig. 9; page 3, paragraph [0063]; page 4, paragraph [0071]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0067]), and

wherein the prefix is used to generate a home address in said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0069]).

Regarding claim 3, Oishi discloses a communication system according to claim 1, further comprising:

decision means for deciding whether or not authentication processing of said mobile terminal having moved to the visited network is required (Fig. 9), utilizing a source address of the access request from said mobile terminal having moved to the visited network (Fig. 9; page 6, paragraph [0107]); and

authentication means for starting authentication processing of said mobile terminal having moved to the visited network when said decision means decides that authentication processing is required (Fig. 9; page 4, paragraph [0066]),

wherein said prefix request means makes a request to said home agent for acquisition of said mobile terminal prefix after said authentication is successful (Fig. 9; page 4, paragraphs [0066]-[0067]).

Regarding claim 4, Oishi discloses a communication system according to claim 3, wherein said gateway equipment further comprises a location information holding means for holding location information on said mobile terminal in said visited network, wherein said authentication means starts said authentication processing after said location information holding means has received a location registration request from said mobile terminal having moved to the visited network (page 4, paragraph [0072]).

Regarding claim 5, Oishi discloses a communication system according to claim 4, wherein said location information holding means holds location information on said mobile terminal after said authentication processing was successful (page 5, paragraph [0084]).

Regarding claim 6, Oishi discloses a communication system comprising:

Art Unit: 2617

a home network installed with a home agent (Fig. 1, references 1 and 3, either alone or in combination) for holding mobile terminal location information of a mobile terminal (page 1, paragraphs [0010] and [0047]), the mobile terminal using a first home address in the home network (paragraph [0046]; also note that the when in the home network the mobile terminal inherently uses a first home address);

a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]; note that the terminal is roaming; thus, in a visited network); and

gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference 2), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (Fig. 1; page 2, paragraph [0046]),

wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network (Fig. 9; page 3, paragraph [0063]; page 4, paragraph [0071]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0067]), and

wherein said mobile terminal comprises:

home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address (Fig. 9; page 4, paragraph [0069]), and

binding information registration means for registering information corresponding to a second home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network (Figs. 17 and 19).

Regarding claim 7, Oishi discloses further comprising: network management equipment connected to said home network and said visited network (Abstract; paragraph [0011]), wherein said home agent and said gateway equipment comprise acquisition means for acquiring, from said network management equipment, programs and data required for distributing prefixes (Abstract; paragraph [0011]) and authenticating said mobile terminal (Abstract; paragraph [0011]).

Regarding claim 8, Oishi discloses a gateway equipment (Fig. 1, reference 2), installed in a visited network containing a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (Fig. 1, reference 5), for forming an interface with a home network containing a home agent (Fig. 1, references 1 and 3, either alone or in combination) for holding location information on said mobile terminal (page 1, paragraphs [0010] and [0047]), the mobile terminal using a first home address in the home network (paragraph [0046]; also note that the when in the home network the mobile terminal inherently uses a first home address), said gateway equipment comprising:

a prefix acquisition request means for requesting acquisition of a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access

Art Unit: 2617

request from said mobile terminal having moved to the visited network (Fig. 9; page 3, paragraph [0063]; page 4, paragraph [0071]); and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0067]);

wherein the prefix is used to generate a home address in said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0069]).

Regarding claim 10, Oishi discloses a gateway equipment according to claim 8, further comprising:

decision means for deciding whether or not authentication processing using a source address for the access request from mobile terminal having moved to the visited network required (Fig. 9; page 6, paragraph [0107]); and

authentication means for starting authentication processing of said mobile terminal having moved to the visited network when said decision means decides that authentication is required (Fig. 9; page 4, paragraph [0066]),

wherein said prefix request means makes a request to said home agent to acquire the prefix of said mobile terminal, having moved to the visited network after said authentication was successful (Fig. 9; page 4, paragraphs [0066]-[0067]).

Regarding claim 11, Oishi discloses a gateway equipment according to claim 10, further comprising: location information holding means for holding information of a location of said mobile terminal having moved to the visited network (page 4, paragraph [0072]), wherein said authentication means starts said authentication processing after receiving a location registration

Art Unit: 2617

request from said mobile terminal having moved to the visited network for said location information holding means (page 4, paragraph [0072]).

Regarding claim 12, Oishi discloses a gateway equipment according to claim 11, wherein said location information holding means holds location information on said mobile terminal having moved to the visited network (page 4, paragraph [0072]) after said authentication processing was successful (page 5, paragraph [0084]).

Regarding claim 20, Oishi discloses an authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent (Fig. 1, references 1 and 3, either alone or in combination) for holding mobile terminal location information of a mobile terminal (page 1, paragraphs [0010] and [0047]), a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]), and gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference 2), the mobile terminal using a first home address in the home network (paragraph [0046]; also note that the when in the home network the mobile terminal inherently uses a first home address), wherein said radio communication device forwards an access request from said mobile terminal having moved to the visited network to said gateway equipment (Figs. 1 and 9; page 2, paragraph [0046]), said authentication method comprising:

making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal having moved to the visited network, forwarding an acquired prefix to said mobile terminal having moved to the visited network (Fig. 9; page 3, paragraph [0063];

Art Unit: 2617

page 4, paragraph [0071]), and authenticating said mobile terminal (Fig. 9; page 4, paragraph [0066]);

wherein the prefix is used to generate a second home address in said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0069]).

Regarding claim 21, Oishi discloses an authentication method according to claim 20, further comprising:

deciding, by said gateway equipment, whether or not authentication processing is required using a source address for the access request from mobile terminal having moved to the visited network (Fig. 9; page 6, paragraph [0107]), and

performing, by said gateway equipment, authentication processing when decided that authentication is necessary (Fig. 9; page 4, paragraph [0066])

Regarding claim 22, Oishi discloses an authentication method according to claim 21, further comprising:

holding, by said gateway equipment the location information of said mobile terminal having moved to the visited network (page 4, paragraph [0072]), and

performing, by said gateway equipment, authentication processing after receiving a location registration request from said mobile terminal having moved to the visited network (page 3, paragraph [0063]).

Regarding claim 23, Oishi discloses an authentication method according to claim 21, further comprising: holding, by said gateway equipment said mobile terminal location information after said authentication processing was successful (page 5, paragraph [0084]).

Regarding claim 24, Oishi discloses an authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent (Fig. 1, references 1 and 3, either alone or in combination) for holding mobile terminal location information of a mobile terminal (page 1, paragraphs [0010] and [0047]), a visited network installed with a radio communications device (Fig. 1, reference 20) for communicating with a mobile terminal (page 1, paragraph [0010]; page 2, paragraph [0046]), and gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference 2), the mobile terminal using a first home address in the home network (paragraph [0046]; also note that the when in the home network the mobile terminal inherently uses a first home address), wherein said radio communication device forwards an access request from said mobile terminal having moved to the visited network to said gateway equipment (Figs. 1 and 9; page 2, paragraph [0046]), said authentication method comprising:

making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal having moved to the visited network, forwarding an acquired prefix to said mobile terminal having moved to the visited network (Fig. 9; page 3, paragraph [0063]; page 4, paragraph [0071]), and authenticating said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0066]);

acquiring, by said mobile terminal, having moved to the visited network said prefix from said gateway equipment (Fig. 9; paragraph [0069]) and creating a second home address in said mobile terminal having moved to the visited network (Fig. 9; page 4, paragraph [0069]) and

registering mapping information with said second home address generated from said prefix and a mobile terminal identification information in a Domain Name Server (DNS) server within a home network, or a visited network, or relay network (Figs. 17 and 19).

Regarding claim 25, Oishi discloses wherein said communication system further includes a network management equipment connected to said home network and said visited network (Abstract; paragraph [0011]), wherein said home agent and said gateway equipment acquire programs and data required from said network management equipment for distributing prefixes (Abstract; paragraph [0011]) and authenticating mobile terminals (Abstract; paragraph [0011]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1-2, 6, 13-14, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerepalli et al. (hereinafter "Veerepalli"; Pub. No.: US 2003/0153324, cited in form PTO-892, paper no. 20050513) in view of Ishiyama.

Regarding claim 1, Veerepalli discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]), the mobile terminal using a first home address in the home network (paragraph [0031]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

Art Unit: 2617

gateway equipment in said visited network for forming an interface with said home network (page 2, paragraph [0045]), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]),

Veerepalli fails to disclose wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network, and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network, and

wherein the prefix is used to generate a home address in said mobile terminal having moved to the visited network.

Note, nonetheless, that Veerepalli discloses a care of address (paragraph [0032]), thus a second home address in said mobile terminal having moved to the visited network.

However, Ishiyama discloses a communication system wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network (page 5, paragraph [0070]; page 6, paragraph [0089]), and

wherein the prefix is used to generate a home address in said mobile terminal having moved to the visited network (page 3, paragraph [0038]; page 6, paragraph [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the gateway, the mobile terminal having moved to the visited network, of Veerepalli a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, and wherein the prefix is used to generate a home address in said mobile terminal as suggested by Ishiyama for the advantages of providing a care of address at the mobile nodes current point of attachment, when not in the home network.

Regarding claim 2, in the obvious combination, Ishiyama discloses wherein along with making a prefix acquisition request (page 6, paragraph [0084]), said prefix request means also requests acquisition of Domain Name Server (DNS) server information from said home agent (page 4, paragraph [0047]), and wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network (page 4, paragraph [0047]; page 6, paragraph [0089]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to request acquisition of Domain Name Server (DNS) server information from said home agent along with making a prefix acquisition request, and wherein said prefix

transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network as suggested for the advantages of later registering the care of address in the home network.

Regarding claim 6, Veerepalli discloses a communication system comprising:

a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]), the mobile terminal using a first home address in the home network (paragraph [0031]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

gateway equipment in said visited network for forming an interface with said home network (page 2, paragraph [0045]), wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal of said visited network to said gateway equipment (page 3, paragraph [0053]),

Veerepalli fails to disclose wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network, and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network,

wherein said mobile terminal comprises:

home address creating means for acquiring prefix from said gateway equipment and creating a second home address, and

binding information registration means for registering information corresponding to a second home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network.

However, Ishiyama discloses a communication system wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network (page 5, paragraph [0070]; page 6, paragraph [0089]),

wherein said mobile terminal comprises:

home address creating means for acquiring prefix from said gateway equipment and creating a second home address (page 3, paragraph [0038]; page 6, paragraph [0092]), and

binding information registration means for registering information corresponding to a second home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network (page 4, paragraph [0047]; page 6, paragraphs [0089] and [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the gateway, the mobile terminal having moved to the

visited network, of Veerepalli a prefix request means for requesting a prefix for said mobile terminal from said home agent in response to an access request from said mobile terminal, and a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal, wherein said mobile terminal comprises: home address creating means for acquiring prefix from said gateway equipment and creating a mobile terminal home address, and binding information registration means for registering information corresponding to a mobile terminal home address created from said prefix and identification information of said mobile terminal at a Domain Name Server (DNS) server in a visited network, relay network or in home network as suggested by Ishiyama for the advantages of providing a care of address at the mobile nodes current point of attachment, when not in the home network.

Regarding claim 13, Veerepalli discloses a communication method including a home network installed with a home agent (Fig. 1, reference 104) for holding mobile terminal location information of a mobile terminal (page 2, paragraph [0042]);

a visited network installed with a radio communications device (page 2, paragraph [0041]) for communicating with a mobile terminal (Fig. 1, reference 102); and

gateway equipment in said visited network for forming an interface with said home network (page 2, paragraph [0045]), the mobile terminal using a first home address in the home network (paragraph [0031]), the communication method comprising: forwarding, by said radio communication device an access request from said mobile terminal having moved to said visited network to said gateway equipment (page 3, paragraph [0053]).

Veerepalli fails to disclose making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal having moved to said visited network, and

said forwarding an acquired prefix to said mobile terminal having moved to said visited network; and creating, by said mobile terminal having moved to said visited network, a second home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal and forwarding a packet addressed to said mobile terminal by registering mapping information along with said second home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network.

However, Ishiyama discloses making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal having moved to said visited network (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]), and said forwarding an acquired prefix to said mobile terminal having moved to said visited network (page 5, paragraph [0070]; page 6, paragraph [0089]); and creating, by said mobile terminal, a second home address based on said prefix acquired from said gateway equipment (page 3, paragraph [0038]; page 6, paragraph [0092]), searching a Domain Name Server (DNS) terminal (page 4, paragraph [0047]) and forwarding a packet addressed to said mobile terminal (note that this is well-known in the art) by registering mapping information along with said mobile terminal home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network (page 4, paragraph [0047]; page 6, paragraph [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the method, the mobile terminal having moved to the visited network, of Veerepalli making, by said gateway equipment an acquisition request to said home agent for a prefix for said mobile terminal having moved to said visited network, and said

forwarding an acquired prefix to said mobile terminal having moved to said visited network; and creating, by said mobile terminal, a second home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal and forwarding a packet addressed to said mobile terminal by registering mapping information along with said second home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network as suggested by Ishiyama for the advantages of providing a care of address at the mobile nodes current point of attachment, when not in the home network, such as the care of address of Veerepalli.

Regarding claim 14, in the obvious combination, Ishiyama discloses further comprising: making, by said gateway equipment, a DNS server information acquisition request and a prefix request to said home agent, and forwards the acquired DNS server information and identifier to said mobile terminal (page 4, paragraph [0047]; page 6, paragraph [0089]; note the prefix).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to request DNS server information acquisition and a prefix to said home agent and forwarding the acquired DNS server information and identifier to said mobile terminal as suggested for the advantages of later registering the care of address in the home network.

Regarding claim 18, in the obvious combination, Ishiyama discloses acquiring, by said mobile terminal having moved to the visited network, said prefix from said gateway equipment and creating a second home address for said mobile terminal having moved to the visited network (page 3, paragraph [0038]; page 6, paragraph [0092]), and registering mapping information with said second home address generated from said prefix and said mobile terminal

Art Unit: 2617

identification information, in a DNS server within a home network, or a visited network or relay network (page 4, paragraph [0047]; page 6, paragraphs [0089] and [0092]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to acquire said prefix from said gateway equipment and creating a second home address for said mobile terminal having moved to the visited network and registering mapping information with said second home address generated from said prefix and said mobile terminal identification information, in a DNS server within a home network, or a visited network or relay network for the advantages of permitting communication with the visited network.

Regarding claim 19, in the obvious combination, Ishiyama discloses wherein said communication system further includes a network management equipment connected to said home network and said visited network, wherein said home agent and said gateway equipment acquires programs and data from said network management equipment required for distributing the prefixes (Fig. 2) and authenticating mobile terminals (Fig. 2; note that authentication is commonly known in roaming terminals).

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over Oishi in view of Ishiyama.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter

disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 8, Oishi discloses a gateway equipment according to claim 8 (see above), discloses wherein said prefix request means makes a prefix acquisition request (Fig. 9) to said home agent, and wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network (Fig. 9), but fail to specifically disclose a Domain Name Server (DNS) server information acquisition request and forwarding the acquired DNS server information.

However, in the same field of endeavor, Ishiyama discloses a Domain Name Server (DNS) server information acquisition request and forwarding the acquired DNS server information (paragraph [0047]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to request a Domain Name Server (DNS) server information acquisition and forwarding the acquired DNS server information as suggested for the advantages of later registering the mobile terminal with the new care of address.

7. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being obvious over Veerepalli in combination with Ishiyama (hereinafter "Veerepalli/Ishiyama") as applied to claim 13 above, and further in view of Oishi.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 15, Veerepalli/Ishiyama disclose a communication method according to claim 13 (see above) further comprising: requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent (page 5, paragraphs [0068] and [0080]; page 6, paragraph [0084]). Veerepalli/Ishiyama fail to disclose deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal having moved to said visited network; starting, by said

Art Unit: 2617

gateway equipment the authentication processing for the mobile terminal having moved to said visited network when it is decided by said deciding step that authentication is required; and requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful.

However, in the same field of endeavor, Oishi discloses deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal having moved to said visited network (page 6, paragraph [0107]), and

starting, by said gateway equipment the authentication processing for the mobile terminal having moved to said visited network when it is decided by said deciding step that authentication is required (page 4, paragraph [0066]); and

requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful (page 4, paragraphs [0066]-[0067]).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate in the communication method of Veerepalli/Ishiyama deciding, by said gateway equipment, whether or not authentication processing is required using a source address of the access request from said mobile terminal having moved to said visited network; starting, by said gateway equipment the authentication processing for the mobile terminal when it is decided by said deciding step that authentication is required; and requesting, by said gateway equipment, acquisition of a prefix for said mobile terminal from said home agent after the authentication was successful as suggested by Oishi for the advantages of properly accessing the services provided and decreasing the connection time if the terminal has

Art Unit: 2617

previously been authenticated by managing information on contracts (Oishi: page 1, paragraph [0010]).

Regarding claim 16, in the obvious combination, Oishi discloses further comprising:

holding, by said gateway equipment the location information of said mobile terminal having moved to said visited network in said visited network (page 4, paragraph [0072]), and

starting, by said gateway equipment, said authentication processing after receiving a location registration request from said mobile terminal having moved to said visited network (page 3, paragraph [0063]).

Regarding claim 17, in the obvious combination, Oishi discloses further comprising:

holding, by said gateway equipment said mobile terminal location information after said authentication processing was successful (page 5, paragraph [0084]).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2617

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSC 2/9/07

MSC